

and included in a set of periodic processes that will be mapped to time slots in a pre-run-time schedule, comprising:

(A)

selecting one asynchronous process in said original set of asynchronous processes,

(1) tentatively converting said one asynchronous process into a corresponding new periodic process,

(2) calculating a first processor capacity which is required to be reserved if said one asynchronous process is not converted,

(3) calculating a second processor capacity which is required to be reserved if said one asynchronous process is converted,

(4) including a copy of said one asynchronous process in a second set of asynchronous processes if the ratio of said first processor capacity to said second processor capacity exceeds a predetermined threshold, otherwise including said tentatively converted corresponding new periodic process in said set of periodic processes,

(B)

repeating A until every asynchronous processes in said original set of asynchronous processes have been selected,

(C)

repeating B,

including removing from the periodic set any corresponding new periodic process that was included in the periodic set in any previous execution of B whenever a copy of a asynchronous process is to be included in the second set of asynchronous processes in the current execution of step B,

further including removing any copy of a asynchronous process from the second asynchronous set that was included in the second asynchronous set in any previous execution of step A whenever any corresponding new periodic process is to be included in the set of periodic processes in the current execution of step A,

(D)

terminating C when no more changes to the second asynchronous set have occurred in the current execution of B.